

REMARKS

Upon entry of the Amendment, claims 8 to 14 are pending in the application. Claims 1 to 7 are canceled.

Claims 1 to 14 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Japanese Abstract 63-199460 A (JP '460) in view of Japanese Abstract 63-52473 A (JP '473).

Claims 8 and 14 recite that the lamination and formation steps are performed in the same epitaxial growth furnace.

JP '460 A discloses semiconductor devices wherein a thin Si-film is layered on an n-type GaAs semiconductor substrate, and an ohmic electrode of platinum is layered on the thin Si-film. JP '460 discloses that the GaAs substrate 11 includes a n-type GaAs layer 112 formed on a GaAs substrate 111. The Examiner concedes that JP '460 does not exactly teach a doped III-V group compound semiconductor single crystal layer, laminating method steps, or a metal electrode of aluminum. The Examiner looks to JP '473 to alleviate this deficiency. JP '473 teaches a compound semiconductor device that includes in upwards order a semi-insulating GaAs substrate 1, a n-type active layer 2, a resist film 8, a Si thin film 3, an AuGe film 4, a Ni film 5, and an Au film.

JP '460 and JP '473 do not teach forming semiconductor devices in a single furnace. In this regard, it appears that JP '460 and JP '473 fail to teach or suggest performing a lamination and a formation of a Si layer in the same epitaxial growth furnace.

Further, the act of carrying out the Si-layer laminating process in the same epitaxial growth furnace prevents oxidation of the top layer (8) of GaAs crystals (See Fig. 1 of the specification). This prevents the surface defect and potential barrier from forming, and results in

a semiconductor wafer with excellent surface stability. Both JP '460 and JP '473 fail to recognize these benefits. In this regard, a person of ordinary skill in the art would not have been motivated to perform the lamination and formation of a Si layer in the same epitaxial growth surface.

Claims 9 to 13 depend from claim 8. In this regard, claims 9 to 13 are not obvious for at least the same reasons as claim 8.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant herewith petitions the Director of the USPTO to extend the time for reply to the above-identified Office Action for an appropriate length of time, if necessary. Unless a check is attached, any fee due under 37 C.F.R. § 1.17(a) is being paid via the USPTO Electronic Filing System, or if not paid through EFS, the USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

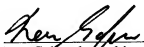
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